

SOFTWARE RELEASE NOTICE

SYSTEM: Automated Tracking Station (ATS)

RELEASE: 2.1.1

DATE: March 22, 1999

MODIFICATION DESCRIPTION:

All work was requested through Request-for-Support (RFS) #99-006. Copies of these requests can be obtained from NASA Code 584/CSC task leader Susannah A. Warner (757-824-2496). The changes made to the ATS source code will be archived on compact disc and sent to Scientific-Atlanta for control under Microsoft Visual Source Safe.

This software release is an upgrade to the existing ATS. It repairs several problems reported in testing at one or all ground stations and/or in N-161 software lab testing. These include:

11mInterface.exe:

- (1) Fix: Ampex recorder status retrieved from the Scientific-Atlanta 11meter Station Control Computer (SCC) status packets modified to provide tape percentage use to the Master PC StationStatusBroadcaster process.

MonitorAndControl.exe:

- (1) Enhancement: The StationStatusBroadcaster process can now be safely stopped and re-started instead of re-cycling all processes on the Master PC.
- (2) Fix: PTP status is retrieved and sent to the StationStatusBroadcaster process.
- (3) Fix: Software that monitors the heartbeat status of the StationStatusBroadcaster process is more reliable.

ProgTMProcAvtec1001.exe:

- (1) Fix: The PTP operations class now compensates for storage of dual drive PTP data.
- (2) Fix: The PTP command wait of two minutes is now five minutes to compensate for older and slower PTPs.

StationStatusDisplay.exe:

- (1) Fix: The "Exit" button on the StationStatusDisplay application works for all situations.
- (2) Enhancement: Sockets to listen for status now re-initialize automatically in the event the StationStatusBroadcaster process is terminated without warning to the StationStatusDisplay (SSD) application; re-cycling the SSD application is no longer necessary.
- (3) Fix: All information in the schedule window is displayed.
- (4) Fix: Status information in the SSD window was re-arranged to allow all SCC S-band receiver status to display.

StationStatusBroadcaster.exe:

- (1) Fix: The StationStatusBroadcaster process is terminated automatically when socket initialization to requested remote clients fail.

Scheduler.exe:

- (1) Fix: The Scheduler process now respects deletes initiated by the WOTIS scheduling office.

WOTISInterface.exe:

- (1) Fix: All daily schedule files are deleted before being re-created again from the base schedule file received from the WOTIS scheduling office. This ensures all WOTIS schedule office deletes will be processed.

FILES AFFECTED:

Files affected are several Windows NT applications (*.exe), PTP dynamic link libraries (*.dll) and text files (*.txt) with version change information.

No device status logging text files or profiles are affected. See **Attachment 1: ATS 2.1.1 FILES AND FOLDERS**.

HARDWARE REQUIREMENTS:

(no changes)

- Minimum Pentium-200 MHz for Master and Nodes.
- Minimum 64 megabytes RAM
- Windows NT 4.0
- Devices connected to Node PCs via RS-232 port (and, in some cases an IEEE converter) on a Digibox. A Hewlett-Packard workstation (HP-UX 10.2) functions as an 11meter antenna control console.

VALIDATION PROCEDURES:

The ATS software team has tested and validated, in the building N-161 lab, the changes included in this release. However, it is recommended that operational testing be conducted at NASA/WFF/WGS for three (3) days, March 23-25, 1999, with continued daily testing with QuikSCAT and Landsat-7-scheduled supports.

KNOWN BUGS OR LIMITATIONS:

Three items requested on RFS 99-006 have not been addressed. These include:

- (1) Doppler validity flag contained in the UTDF file created at post-pass by the PassResultsCompiler.exe and sent to remote clients. Reports from the recent Landsat7 ORR on March 3, 1998 revealed no doppler flag problems during processing of ATS 2.1 UTDF files. ATS software is not sure if this flag is a problem in the ATS 2.1 or with manual setup parameter on TDF.
- (2) A possible problem in ATS 2.1 ProfileEditor.exe during repeated file opens of a PTP configuration file causes fatal "Dr. Watson" Windows NT errors. This problem was not repeatable in lab conditions. Operations personnel should be advised to edit one copy of a Master profile and close before re-opening another profile.
- (3) An option to allow the operator the capability to select a Metrum recorder to "Record with direct flag" was not addressed. The Metrum BVLDS hardware documentation indicates that this option causes no particular difference in recording behavior; the option is meaningless to the recorder.

Changes to accommodate the GDP-911 automation, new switch re-design, GDP-783 saved settings and General Resource Manager (GRM) heartbeat status are not covered in this release.

INSTALLATION PROCEDURE:

Installation of this release will be conducted with a disk copy of the files (see **Files Affected** above) to the Wallops Ground Station (WGS). Installation will take no more than one hour. Installation of the software to the Alaska Ground Station (AGS) and Svalbard Ground Station (SGS) will be by remote copy and will follow on Friday March 26, 1999 after additional validation through operational testing at WGS. The remote installation will require a maximum of one hour and will be scheduled through the WOTIS scheduling office.

DOCUMENTATION AFFECTED:

The “Automated Tracking Station User’s Manual” is available on the internet at <http://www.wff.nasa.gov/~code584/awots.html> The PTP appendix has been updated.

COMMENTS:

Points of contact for ATS release 2.1 are [David L. Davis](#)/NASA (757-824-1444) and [Jeffrey L. Dorman](#)/CSC (757-824-2300).

APPROVAL:

The software modifications described in this release notice has been validated and accepted.

NASA EPGS Project Manager

Date

NASA AWOTS/WGS Project Manager

Date

SOFTWARE RELEASED:

The software modifications described in this release notice has been completed and released to ground station operations.

System Manager

Date

NASA Program Monitor

Date

ATTACHMENT 1

ATS 2.1.1 FILES AND FOLDERS

FILES ON ALL MASTERS:

Directory of C:\Master

11mInterface.exe
11mInterface.txt
MonitorAndControl.exe
MonitorAndControl.txt
PassResultsCompiler.exe
PassResultsCompiler.txt
Scheduler.exe
Scheduler.txt
WOTISInterface.exe
StationStatusBroadcaster.exe
StationStatusBroadcaster.txt
StationStatusDisplay.exe (available for clients: LandSAT-7and QuikSCAT)

FILES ON ALL NODES:

(None)

FILES ON BOTH MASTERS AND NODES:

Directory of C:\WFF

OpTsAvtec1001.dll
ProgTMProc.dll
PTPAvtec1001.dll